

DESCRIPTION

Fabrication boards are manufactured from inorganic glass fibers bonded by a thermosetting resin. Light, strong and resilient, they are easy to fabricate and install.

AVAILABLE FORMS

Made in sheet form, they are available in two different densities and rigidities to meet a range of product application, temperature and thermal performance requirements. Please refer to the table of "Densities, Thicknesses and Sizes" below.

USES

Fabrication boards have a recommended temperature limit up to 850°F (454°C) and are commonly fabricated into pipe and tank insulation products used on heated pipes, ducts and equipment. They can also be used in sheet form, plain or faced, for commercial and industrial heating, air conditioning and process equipment. These products are not designed for direct exposure to the airstream.

ADVANTAGES

High Thermal Performance. The glass fibers create an enormous number of minute air spaces, making the insulation highly resistant to the passage of heat.

Fire Safety. Fabrication boards meet the requirements of NFPA 90A and 90B Standards and FHA in plain form. Tested in accordance with ASTM E 84, NFPA 255 and UL 723 with surface burning characteristics FHC of 25/50.

Noise Control. Inherent acoustical properties reduce the level of unwanted noise.

Faster Installation. Fabrication boards are readily cut with an ordinary knife and can be secured with fasteners, adhesives or tape.

Superior Performance. Bonded glass fibers are strong and durable with resistance to the effects of moisture, oil, grease and most acids. The resilient glass fibers resist settling, breakdown and sagging from vibration and high temperatures. Fabrication boards provide neat, square corners for an improved, finished appearance in equipment systems.

DENSITIES, THICKNESSES AND SIZES
Standard Size Batts

Type	Density		Thickness		High Temp. Limit	
	pcf	kg/m ³	in	mm	°F	°C
3005	3.0	48	1-4	25-102	850	454
3008	3.0	48	1-4	25-102	650	343


QUALIFICATIONS FOR USE

The temperature limits listed are based on the material in plain sheet form. The application of the fabricated pipe and tank product will depend on the facing material and adhesive used.

During initial heat-up to operating temperatures above 350°F (177°C), an acrid odor and some smoke may be given off as the organic binders used in the insulation begin to decompose. When this occurs, caution should be exercised to ventilate the area well.

PHYSICAL PROPERTIES

Moisture sorption	Less than 5.0% by weight
Alkalinity (ASTM C 871)	Less than 0.6% expressed as Na ₂ O
Corrosivity	Noncorrosive; does not accelerate
Odor	None
Shrinkage	None
Resistance to fungi and bacteria (ASTM C 665)	Does not breed or promote

THERMAL CONDUCTIVITY (K) – ASTM C 518

Type	Mean Temperature °F (°C)			
	75°F (24°C)	300°F (149°C)	75°F (24°C)	300°F (149°C)
3005	.23*	.033**	.33*	.048**
3008	.23*	.033**	.36*	.052**

*Btu • in/(hr • ft² • °F).
 **W/m • °C.



MECHANICAL INSULATION
FABRICATION BOARD
SEMI-RIGID FIBERGLASS INSULATION BOARD

SPECIFICATION COMPLIANCE

Type	3005	3008
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HH-I-558B:		
Form A, Class 1	X	X
Form A, Class 2	X	X
Exceptions: Unless requested, only standard inspection. Does not meet length and width tolerances.		
ASTM C 612:		
Class 1	X	X
Class 2	X	X
Class 3	X	—
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Exceptions: Does not meet standard length and width requirements.		

ASTM C 795
MIL-DTL-24244D
NRC 1.36
ASTM E 84; UL 723; NFPA 255 - Fire Safety
Flame Spread - Not exceeding 25
Smoke Developed - Not exceeding 50
NFPA 90A and 90B Standards
ASTM C 518 – Thermal Conductivity
ASTM C 411 – Hot Face Temperature
ASTM C 356 – Shrinkage (none)
ASTM C 665 – Odor emission (no objectionable odor)
– Fungi and bacteria resistance
(does not breed or promote)
– Corrosion resistance (will not cause corrosion
of aluminum, copper or steel)
Capillarity – Negligible (after 24 hours)

ISO 9000 CERTIFICATION

Johns Manville mechanical insulation products are designed, manufactured and tested in our own facilities, which are certified and registered to stringent ISO 9000 (ANSI/ASQC 90) series quality standards. This certification, along with regular, independent third-party auditing for compliance, is your assurance that Johns Manville products deliver consistent high quality.



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The physical and chemical properties of Fabrication Board represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www2.jm.com/terms-conditions or call (800)654-3103.